What is claimed is:

1   1.   A method of assigning a network address to a network access
2   device connected to an access network infrastructure connected to a plurality of
3   service networks, comprising the steps of:
4   receiving a request from a subscriber operating a network access
5   device selecting a service provided by a service network and subscribed to by the
6   subscriber;
7   allocating a network address from a pool of addresses allocated to
8   subscribers of the service;
9   assigning the network address to the network access device using a
10   host configuration protocol wherein the network address is utilized by the access
11   network infrastructure to forward packets from the network access device to the
12   service network providing the selected service.

1   2.   The invention of claim 1 wherein the host configuration
2   protocol is DHCP.

1   3.   The invention of claim 1 further comprising the step of
2   authenticating the subscriber before assigning the network address to the network
3   access device.

1   4.   The invention of claim 1 wherein the service networks utilize
2   the Internet Protocol and wherein the addresses are Internet Protocol addresses.

1   5.   The invention of claim 4 wherein the plurality of service
2   networks are operated by different Internet Service Providers.

1   6.   The invention of claim 4 wherein the plurality of service
2   networks offer access to different Internet Protocol-based services.

1   7.   A method of assigning a network address to a network access
2   device connected to an access network infrastructure connected to a plurality of
3   service networks comprising the steps of:

4   receiving a request from a subscriber operating a network access

5   device selecting a service provided by a service network and to which the

6   subscriber is subscribed;

7   allocating a network address from a pool of addresses allocated to

8   subscribers of the service;

9   receiving authentication information from the subscriber;

10   transmitting the authentication information to the service network;

11   if the service network authenticates the subscriber, assigning the

12   network address to the network access device using a host configuration protocol,

13   wherein the network address is utilized by the access network to forward packets

14   from the network access device to the service network providing the selected

15   service.

1   8.   The invention of claim 7 wherein the host configuration

2   protocol is DHCP.

1   9.   The invention of claim 7 wherein the service network

2   authenticates the subscriber using RADIUS protocol.

1   10. The invention of claim 7 wherein the service networks utilize

2   the Internet Protocol and wherein the addresses are Internet Protocol addresses.

1   11. The invention of claim 7 wherein the plurality of service

2   networks are operated by different Internet Service Providers.

1   12. The invention of claim 7 wherein the plurality of service

2   networks offer access to different Internet Protocol-based services.